

WHAT IS CLAIMED IS:

1. A rotary hydroponic plant-growing machine comprising a cylindrical structure for holding plant-growing containers, a base  
5 for rotatably supporting said cylindrical structure, means for rotating said cylindrical structure on said base, a light inside said cylindrical structure and means for watering said plants in said containers as said cylindrical structure rotates, characterized in that said cylindrical structure comprises a circumferential surface  
10 which defines a plurality of longitudinal slots adapted to receive one or more of said containers.
2. A rotary hydroponic plant-growing machine according to claim 1  
15 wherein said cylindrical structure further comprises longitudinal channels adjacent to said longitudinal slots adapted to slidably engage an outwardly-extending flange on said container and hold said container in said slot.
3. A rotary hydroponic plant-growing machine according to claim 2  
20 wherein each of said slots defines at least one opening sized to allow said outwardly-extending flange to be inserted into and removed from sliding engagement with said longitudinal channels.
4. A rotary hydroponic plant-growing machine according to claim 2  
25 wherein said longitudinal channels are formed by a pair of L-shaped brackets attached to an outer wall of said cylindrical structure on either side of said slots.
5. A rotary hydroponic plant-growing machine according to claim 2  
30 wherein said longitudinal channels are formed by a pair of L-

shaped brackets attached to an inner wall of said cylindrical structure on either side of said slots.

- 5 6. A rotary hydroponic plant-growing machine according to claim 2 wherein said longitudinal channels are formed in edges of said circumferential surface.
- 10 7. A rotary hydroponic plant-growing machine according to claim 2 in combination with one or more of said containers.
- 15 8. A rotary hydroponic plant-growing machine according to claim 1 wherein edges of said circumferential surface adjacent to said longitudinal slot are adapted to slidingly engage between a pair of outwardly-extending flanges on said container and hold said container in said slot.
- 20 9. A rotary hydroponic plant-growing machine according to claim 8 wherein each of said slots defines at least one opening sized to allow said edges to be inserted into and removed from sliding engagement with said outwardly-extending flanges.
- 25 10. A rotary hydroponic plant-growing machine according to claim 8 in combination with one or more of said containers.
- 30 11. A rotary hydroponic plant-growing machine according to claim 1 wherein said cylindrical structure further comprises longitudinal channels adjacent to said longitudinal slots adapted to slidingly engage a pair of outwardly-extending tabs on each of two opposite sides of said container and hold said container in said slot.

12. A rotary hydroponic plant-growing machine according to claim 11 wherein each of said slots defines at least one opening sized to allow said outwardly-extending tabs to be inserted into and removed from sliding engagement with said longitudinal channels.
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13. A rotary hydroponic plant-growing machine according to claim 11 in combination with one or more of said containers.
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14. A rotary hydroponic plant-growing machine comprising a cylindrical structure for holding plant-growing containers, a base for rotatably supporting said cylindrical structure, means for rotating said cylindrical structure on said base, a light inside said cylindrical structure and means for watering said plants in said containers as said cylindrical structure rotates, characterized in that said cylindrical structure comprises an end member at each longitudinal end thereof and a plurality of pairs of C-shaped channels extending between said end members, each said pair of C-shaped channels being configured to slidably engage an outwardly-extending flange on said containers and hold said containers therebetween.
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15. A rotary hydroponic plant-growing machine according to claim 14 wherein each of said pairs of C-shaped channels defines at least one opening sized to allow said outwardly-extending flange to be inserted into and removed from sliding engagement with said pair of C-shaped channels.
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16. A rotary hydroponic plant-growing machine according to claim 15 in combination with one or more of said containers.